Digital voice processor designed to implement a digital voice scrambler

CML Microcircuits (www.cmlmicro.com [1]) has released a new digital voice scrambler.

The CMX7011 is a flexible, half duplex, digital voice processor specifically designed to implement a digital voice scrambler for use with conventional radio communication systems including analogue professional mobile radio, wireless door access and gate entry systems.

The need for secure voice communication has become an important requirement for wireless communication. With new communication systems moving towards the digital domain which inherently provides voice security, the widely-used legacy analogue systems are being left behind. A number of analogue voice privacy systems are available today, based on frequency inversion techniques that provide a level of security. In many applications higher levels of voice security are required whilst remaining on lower-cost, widely available analogue radio systems.

Digital scrambling is the answer, providing the highest level of voice security and the advantage of digital voice. The CMX7011 provides the solution with an embedded state-of-the-art, low-cost, low-bit rate Vocoder combined with a robust audio-band voice data modem.

The device allows simple implementation and configuration within existing designs and is intended to be added to a radio via an accessory port or ‘feature socket’. The

CMX7011 offers good quality speech and, using the internal digital scrambling algorithm, significantly higher levels of security are achieved.

Built in to the CMX7011 is CML's proven and reliable RALCWI (Robust Advanced Low Complexity Waveform Interpolation) vocoder providing near toll quality speech at low bit rates. The CMX7011 also offers ‘instant voice capture’, featuring push-to-talk (PTT) buffering eliminating clipping in PMR applications. New features and enhancements to existing functions may be provided in future, via Function Images™, expanding the capabilities of the device. The CMX7011 offers the designer excellent performance, flexibility and a fast time-to-market.

The CMX7011 operates at 3.0V to 3.6V and comes in a 48-pin LQFP or VQFN package.

For a datasheet, application notes and product support information, visit CML: www.cmlmicro.com [2]

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Links:
[1] http://www.cmlmicro.com
[2] http://www.cmlmicro.com/